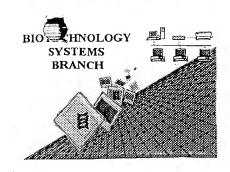
RAW SEQUENCE LISTING ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/778,900Source: 1645Date Processed by STIC: 5-7-0/

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216. PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax) PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE <u>CHECKER</u> <u>VERSION 3.0 PROGRAM</u>, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address: http://www.uspto.gov/web/offices/pac/checker

Does Not Comply

See p. 3

MAY 2.4 2001

1645

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/778,900

DATE: 05/07/2001 TIME: 18:00:15

Input Set : A:\09778900.txt

Output Set: N:\CRF3\05072001\1778900.raw

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Corrected Diskette Needed
      3 <110> APPLICANT: John Craig SMITH
      5 <120> TITLE OF INVENTION: DIAGNOSTIC METHOD
      7 <130> FILE REFERENCE: 009901/0277123 - LDSG/PHM70675/US
      9 <140> CURRENT APPLICATION NUMBER: US 09/778,900
     10 <141> CURRENT FILING DATE: 2001-02-08
     12 <150> PRIOR APPLICATION NUMBER: GB 0004232.5
                                                                            RECEIVED
     13 <151> PRIOR FILING DATE: 2000-02-24
     15 <160> NUMBER OF SEQ ID NOS: 24
     17 <170> SOFTWARE: MS Word
     19 <210> SEQ ID NO: 1
     20 <211> LENGTH: 1073
                                                                           TECH CENTER 1600/2900
     21 <212> TYPE: DNA
     22 <213> ORGANISM: Human
     24 <220> FEATURE:
     25 <221> NAME/KEY: UNSURE
     26 <222> LOCATION: 396 /
     27 <223> OTHER INFORMATION: any
     29 <400> SEQUENCE: 1
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     31 ctgttggccc atatgtaata tatattcctg cttatacaag atggccatgg gaagttattt 120
     32 ttagtcattg tttggaatga ctttataaaa atgctttgca ttttttagca agaccatcat 180
     33 ataattgttt aagatcaagt acaacacata aggtcactgg agaatttgag tgcatgttat 240
     34 ccaagatagg atggtagagc tcacattaca gaaatgtagt gtgggaatag taaggagtcg 300
     35 tttaatagaa attgcacacc taagtgtgat gagtgtatgt gaatgtggag aagtactttc 360
W--> 36 tgcacctggc cacacagttt caaccaaatg atcccnaaat aaaacagtgg atgttaacgg 420
     37 aatatetagg atttgtaaag ttgttttett etegatgaet ttgagatete tttatttete 480
     38 agtettette tgaaataaag actgactaee tateaattat aatggaceea gatgaagtte 540
     39 ctttggatga gcagtgtgag cggctccctt atgatgccag caagtgggag tttgcccggg 600
     40 agagacttaa actgggtaag atatttgttc aacagattca taaacctata ctgagcacat 660
     41 attacatgaa aaacactgtg ctttgagaga tgcgaaagta aactagacct gggattctac 720
     42 octocagoty otcacagact agcaagggag atggacacaa aagtaaataa ttocaatgca 780
     43 atgeteagat aacagtacaa ggtgacaege agcaeetgtt tgttettgea acagttatta 840
     44 ggcaccttct ctgagcagca gacactggtc taagccctgg agacacaaag gtgcttgcat 900
    45 ctcttccctc aaagggctca gtctggagat aggtgcaaaa gtggtaagtg aaggggggcg 960
    46 gagagagagg cattacaagt acacgcacgc ttcataatga aactgttgag ggattagaaa 1020
     47 tatgtgatcc agaacataat tgagggtggc aaggaacagt gaaatcaaca ttc
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    51 <211> LENGTH: 1480
    52 <212> TYPE: DNA
    53 <213> ORGANISM: Human
     55 <220> FEATURE:
    56 <221> NAME/KEY: UNSURE
    57 <222> LOCATION: 132
    58 <223> OTHER INFORMATION: any
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60 <220> FEATURE:

61 <221> NAME/KEY: UNSURE 62 <222> LOCATION: 359



RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/778,900

DATE: 05/07/2001 TIME: 18:00:15

Input Set : A:\09778900.txt

Output Set: N:\CRF3\05072001\I778900.raw

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MAY 2.4 2001

TECH CENTER 1600/2900

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     66 <221> NAME/KEY: UNSURE
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     68 <223> OTHER INFORMATION: any
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     72 tetgaacetg tttctccatg tataaataag aactactteg taaaattgtt ggaaacacta 120
W--> 73 aacaagaaat gńacctaaag cttttaatat accagctcac acagagtaag cattcagtaa 180
     74 atacccacca ctcttaattt tttttttta tctgatctaa gatgctgtct agaagcccag 240
     75 gcaagagcac aatagactet gcaactecag aggtagteag geteetggae acegtaggge 300
W--> 76 ccctgtgcta gttcacgatc cattttgaga agtgaaacgc tctcatttct catcaggcma 360
W--> 77 ttgccagttg agggactggt ttcccnctgc tgtgctggag ctccttttca cctgggtcct 420
     78 tttcggtctc ttcaaaggat gcagcactac acatggagcc taagaaagaa aaaatggagc 480
     79 caggeetgga acaaggeaag aaaccaagac tagatagegt caccageage gaaagetttg 540
     80 cgagctccgg ctttcaggaa gataaaagtc tgagtgatgt tgaggaagag gagggtaggt 600
     81 attaatteet teetgteeta egegetgaga tatttttaca acatactatg catetetgaa 660
     82 atttttttct tatttatcac tctaataaac atccgtggga gactcgaatg gtaatgtcct 720
     83 gaggagataa gatttgaatt aagataattt acagagttac taattttgac agggaactgt 780
     84 accepttitct coccicages attiticatet taategatea teccectece eccatecite 840
     85 gataaagtgg getggaggee tggaaaaate tetggtgtte atgttgaaac teaaatacte 900
     86 ttaaaaatga actetgatet aettgttggt ttgttttatg ttttgetaae attgtteeaa 960
     87 taaactggga tttggtggga taacaagagc cattacaaac agttacggtt ctaatgcttt 1020
     88 ccagattctg acggtttcta caaggagccc atcactatgg aagatctgat ttcttacagt 1080
     89 tttcaagtgg ccagaggcat ggagttcctg tcttccagaa aggtcagtct tgctgtttac 1140
     90 tgtttttett etetgecagg getggacaca eacetttget ataaatteat tttteetagt 1200
     91 atttgctgat acctatgttc ttaaatgtag aacaaacacc actgcaagtg ccttaatttg 1260
     92 ccttgatatg aggagttttg agaatgagga gtcatggata ccagtggata gaacttaatt 1320
     93 ctggggaaaa ctcacaggtt tcagactaga caaacctggc atcggctctc cacagtatcc 1380
     94 totggcatat titicaaatot ggcccaaato toagaagaca tgacticata ggagagetac 1440
     95 tattaatata gccatatagg gccctcccac aaaactgcag
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     99 <211> LENGTH: 726
     100 <212> TYPE: DNA
     101 <213> ORGANISM: Human
     103 <220> FEATURE:
     104 <221> NAME/KEY: UNSURE
     105 <222> LOCATION: 59
     106 <223> OTHER INFORMATION: any
     108 <400> SEQUENCE: 3
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     110 cetteatggg acteagtata geactetage tecetetttt agegtaacae tgeatactat 120
     111 ggtgttctct atgttaggaa accagagctg ctctcggaaa tgatttatag gccgtatgtt 180
     112 atctgggagg tgaccccatg gacactcggg ttgaatgtgc tttgttttca tgcccttctg 240
     113 ctcaaggece cettgeeete ttctagaete gaetteetet gaaatggatg geteetgaat 300
     114 ctatetttga caaaatetae ageaecaaga gegaegtgtg gtettaegga gtattgetgt 360
     115 gggaaatett eteettaggt aaatttggga gaaggaagaa ateaaacage ecagaaataa 420
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116 atgtctgcat cttctgctga atgtcctttg gttggacagc ctttagatta gaacctactg 480 117 taacaaaaaa ctcttaaagt gtaatgggcc catgtagact ctcagatgag taatggcgta 540





RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/778,900

DATE: 05/07/2001 TIME: 18:00:15

Input Set : A:\09778900.txt

Output Set: N:\CRF3\05072001\1778900.raw

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     119 gtcatgtaaa agggctttat acgatcatga acaagggtat aaagtctgaa gcaaagtact 660
     120 ttttctgtac tttgccaatt ctgccttttc aattcctcaa cacccacacc tctaatgccc 720
     124 <210> SEQ ID NO: 4
     125 <211> LENGTH: 1352
     126 <212> TYPE: DNA
     127 <213> ORGANISM: Human
                                         position 132 is "t," not "n".
     129 <220> FEATURE:
     130 <221> NAME/KEY: UNSURE
     131 <222> LOCATION: 132
     132 <223> OTHER INFORMATION: any
     134 <220> FEATURE:
     135 <221> NAME/KEY: UNSURE
     136 <222> LOCATION: 878
     137 <223> OTHER INFORMATION: any
     139 <400> SEQUENCE: 4
     140 ctgcagaggc cacaggcaca acaaagaacc tgggtatcca tgagctctgg tgggttggtt 60
     141 agtetgeett ggtagaegtg ttttccaetg accaeaggae etggeecaga eageetttta 120
     142 agtgctggtg chataaaccc aaacctaaaa atgaagcagg gtcacatagt acagaaagct 180
     143 tgggctttat gcggatgatg acagccctcc ctttgtagta cgtaaggcaa tgcataggat 240
     144 gateactget etecaactat ttetgttget gtttteecea ecagetatea gateatgetg 300
     145 gactgctggc acagagaccc aaaagaaagg ccaagatttg cagaacttgt ggaaaaacta 360
     146 ggtgatttgc ttcaagcaaa tgtacaacag gtaaaactaa atttatctac atcaaaatgc 420
     147 ctttgaatgt acgtcagggg ggcattttat ttgttttttt tttaagagct attaatataa 480
     148 tagctgagat cagaagttta aaaaaagggt gtgtgtgtgt gtatacagaa ttatcttctc 540
     149 aaaacacaac caagattgtg gcaaatgaca tagtcaaagt tgacataatg gttcatagaa 600
     150 attgttgaag tcagaattgg tgcaacgaga gctctacctt tggtatttta ggatggtaaa 660
     151 gactacatcc caatcaatgc catactgaca ggaaatagtg ggtttacata ctcaactcct 720
     152 gccttctctg aggacttctt caaggaaagt atttcagctc cgaagtttaa ttcaggaagc 780
     153 tetgatgatg teaggtaaga tttetttete aaactttata teacagaatt tteeaacaaa 840
W--> 154 aaaaagaaag aaagaaagac gaaagagaaa gaaagacnga aagagagaaa gaaagagaga 900
     155 aagaaagaaa gagagaaaga aagaaagaaa gattatgttg atcaccaccc atatgcccat 960
     156 cccctaaatt caactgttaa cattttgccc tattttgtct attatactct ctatgattgt 1020
     157 gtttgttacg gatttttctt tttgccaaac catttaaaag gaggcttaaa gcataatagc 1080
     158 actttactcc taaatacttt agtatacatt ttgtaagaag gctattgttg ctgggcacag 1140
     159 tggctcgtgc ctgtaatcgc agcactttgg gagactgagg tgggaggatc acttgagcct 1200
     160 aggagtteaa aatetgeete ggeaacatag agagaeetea tettaetaaa aatttaaaaa 1260
     161 ttagccgggt gtggtggtgg gcacctgtag tcccagctac tcaggaggct gaggttggag 1320
     162 gatcacttga gcccaggaga tggaggctgc ag
                                                                            1352
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     166 <211> LENGTH: 1256
     167 <212> TYPE: DNA
     168 <213> ORGANISM: Human
     170 <400> SEQUENCE: 5
     171 agtggatgtc tccaatagtc tttcctaata catcatcaac aaaaggtcag taggtagtta 60
     172 tagagacatc atacaacact acccaattct tcccaatctg taatcacaca cacaacaaa 120
     173 atacaagcct ggcactagca ctcgattatg ccattaaata atatttagcc gtgtagccat 180
     174 gccaqqtcac tttgccacct cacatccttt tcaqaqcacc tgataaaqtc ataccacttc 240
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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/778,900

DATE: 05/07/2001 TIME: 18:00:15

Input Set : A:\09778900.txt
Output Set: N:\CRF3\05072001\I778900.raw

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176	ctcctacgtc tggcattctc	tgatttcaca	acggaccaga	gtaggtccct	ctgggagttt	360
177	cctcaaccct acagaatgtg	aattgacaac	cacgggaggc	agtggcaatg	ctgtcaggat	420
178	teccaggggt caeggegggg	agatcggggc	ctcaggagtt	aggtgattcc	tgttggtgtg	480
	ttggttcatc ttagctggga					
	cttttcctgt cttgataatt					
181	catgagectg gaaagaatca	aaacctttga	agaactttta	ccgaatgcca	cctccatgtt	660
	tgatgtaagt cgtgaagtta					
	cttccaaaca ccaacgccag					
	agtggctgaa atgacagtgt					
	ttgaaagtag agttccatgc		-		_	
	qacctqaqq aaactccatt					
	gctttcagag taacagagga					
188	agagegegtt cetgeaagea	accttgagge	tagaagggt	ccacctaage	cttatgctcc	1080
	tttccctqa ggttctacag					
	ctaaccagta tagcctggca					
	tgtggggttg aggggctaag		_		_	1256
	<210> SEQ ID NO: 6	gggaggagag	gagcacgggc	aggagegaca	Cegeag	1250
	<210> SEQ 1D NO: 6 <211> LENGTH: 31					
	<211> LENGIH: 31 <212> TYPE: DNA					
	<213> ORGANISM: Human					
	<400> SEQUENCE: 6		~			31
	ggaaaaatg ccgacrgaag	gagaggacci	9			31
	<210> SEQ ID NO: 7					
	<211> LENGTH: 31					
	<212> TYPE: DNA					
	<213> ORGANISM: Human					
	<400> SEQUENCE: 7					
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	<210> SEQ ID NO: 8					
	<211> LENGTH: 31					
	<212> TYPE: DNA					
	<213> ORGANISM: Human					
217	<400> SEQUENCE: 8		•			
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221	<210> SEQ ID NO: 9					
222	<211> LENGTH: 31					
223	<212> TYPE: DNA					
224	<213> ORGANISM: Human					
226	<400> SEQUENCE: 9					
227	aaaaagacac ggacaygctc	ccctgggacc	t			31
230	<210> SEQ ID NO: 10					
231	<211> LENGTH: 31					
232	<212> TYPE: DNA					
233	<213> ORGANISM: Human					
	<400> SEQUENCE: 10					
	gateggactt teegeyeeta	gggccaggcg	g			31
	<210> SEQ ID NO: 11	222 22 2	-			
	<211> LENGTH: 31					
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DATE: 05/07/2001 RAW SEQUENCE LISTING PATENT APPLICATION: US/09/778,900 TIME: 18:00:16

Input Set : A:\09778900.txt
Output Set: N:\CRF3\05072001\I778900.raw

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	<400> SEQUENCE: 11			21
	gacggactct ggcggycggg <210> SEQ ID NO: 12	tetttggeeg	С	31
	<211> LENGTH: 31			
	<212> TYPE: DNA			
	<213> ORGANISM: Human			
	<400> SEQUENCE: 12			
254	tctggcggcc gggtckttgg	ccgcggggag	C	31
257	<210> SEQ ID NO: 13			
	<211> LENGTH: 31			
	<212> TYPE: DNA			
	<213> ORGANISM: Human			
	<400> SEQUENCE: 13			~ -
	gaatgtcctt tggttrgaca	gcctttagat	t	31
	<210> SEQ ID NO: 14 <211> LENGTH: 31			
	<211> HENGIH: 31			
	<213> ORGANISM: Human			
	<400> SEQUENCE: 14			
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	<210> SEQ ID NO: 15	3		
276	<211> LENGTH: 34			
277	<212> TYPE: DNA			
	<213> ORGANISM: Human			
	<400> SEQUENCE: 15		· ·	
	atgggtttca tgttaacttg	gaaaaaatgc	gtac	34
	<210> SEQ ID NO: 16			
	<211> LENGTH: 28			
	<212> TYPE: DNA <213> ORGANISM: Human			
	<400> SEQUENCE: 16			
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	<210> SEQ ID NO: 17	agagegae		20
	<211> LENGTH: 35			
	<212> TYPE: DNA			
296	<213> ORGANISM: Human			
298	<400> SEQUENCE: 17			
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	<212> TYPE: DNA			
	<213> ORGANISM: Human			
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	<211> SEQ 1D NO: 19			
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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/778,900

DATE: 05/07/2001 TIME: 18:00:17

Input Set : $A: \09778900.txt$

Output Set: N:\CRF3\05072001\I778900.raw

L:36 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 L:73 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 L:76 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 L:77 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 L:109 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:154 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4